

REMARKS/ARGUMENTS

Claims 1-7 and 9-20 are pending.

Rejections

Claims 1-7, 14 and 16-18 are rejected under 35 U.S. C 102(b) being anticipated by Takeo et al. (JP #10-061715). The Examiner states in parts 2 and 7 of the office action that pages 26/42 lines 14-16 of Takeo shows a condition where flow from liquid chamber 11 ceases to flow through the inside of the above mentioned small diameter orifice 5, effectively isolating chamber 31 from chamber 11, so that Takeo's vibration damping device would comprise the same structure as the claimed invention of not having chamber 31 to effect chamber 11.

The ceasing of flow from liquid chamber 11 through the inside of the above mentioned small diameter orifice 5, is not a static condition, but an oscillating condition, where the diaphragm 12 is oscillated or excited at a frequency higher than the resonance frequency of the liquid which exists in the small diameter orifice 5 (see page 26/42, lines 8-16). This sentence merely explains one phenomenon that active fluid pressure fluctuation will not pass the small diameter orifice 5, when the fluid pressure fluctuates at a frequency (e.g. 20Hz-40Hz, see page 25/42 lines 20-23 of English translation of Takeo et al.) smaller than the resonance frequency to which the orifice 5 is tuned (e.g. 5Hz, see page 27/42, lines 18-28 of English translation of Takeo et al.).

As described on page 27/42, lines 29-35 of English translation of Takeo et al., the orifice 5 makes liquid in the liquid chamber 11 flow to the liquid chamber 31 during input of initial-state load at the time of installation to the vibrating body, whereby equilibrium of initial pressure in each said liquid chamber 11 and 31 is maintained. This means that static fluid pressure fluctuation, whose frequency is of course lower than the resonance frequency, 5Hz, of the orifice 5, will always pass the orifice 5.

Accordingly, should be apparent that Takeo et al. discloses that the static fluid pressure in the liquid chamber 11 is always maintained in the atmospheric pressure due to the presence of the equilibrium chamber 31 which is always connected to the liquid chamber 11 through the orifice 5, since the flexible diaphragm 32 defining the equilibrium chamber 31 is always exposed to the atmospheric pressure. It should be appreciated by the Examiner that even if the active fluid pressure fluctuation is induced in the liquid chamber 11 at a frequency more than 5Hz, the static pressure in the liquid chamber 11 will be maintained at the atmospheric pressure.

Therefore, Takeo et al. fail to teach a structure or mechanism to inhibit the static fluid fluctuation transmission between the liquid chambers 11 and 31 through the orifice 5, so that Takeo et al. neither teach nor suggest an structure, method and/or concept of statically changing or controlling the fluid pressure in the liquid chamber 11. It is structurally impossible in the fluid-filled vibration-damping device of Takeo et al., to regulate the static pressure in the liquid chamber 11, as long as the liquid chamber 11 is open to the equilibrium chamber 31 through the orifice passage 5. For at least these reasons, claim 1 is not anticipated by Takeo et al.

The Examiner rejected claims 9-13 under 35 U.S.C. 103 (a) as being unpatentable over Takeo et al. (Japanese publication #10-061715) in view of Muramatsu (USP 5,170,998).

The Examiner rejected claims 19 and 20 under 35 U.S.C. 103 (a) as being unpatentable over Takeo et al. (Japanese publication #10-061715) in view of Muramatsu (EP 0936376A2).

Claims 2-7, 9-14, and 16-20 each depend either directly or indirectly on the independent claim, and are therefore respectfully submitted to be patentable over the art of record for at least the reasons set forth above with respect to the independent claims. Additionally, these dependent claims require additional elements that when taken in the context of the claimed invention, further patentably distinguish the art of record.

For example, claim 3 specifically recites a static working air chamber that functions as a static pressure control mechanism. Takeo et al. fail to teach the static working air chamber functioning as the static pressure control mechanism as defined in claim 3. The Examiner failed to point out anything in Takeo that teaches that the second equilibrium chamber 23 functions as a static pressure control mechanism.

In addition, claim 4 further recites a static pressure regulating switch valve that is able to statically change the spring stiffness of the elastic oscillating plate. Takeo et al. fail to teach the static pressure regulating switch valve operable to substantially statically change the spring stiffness of the elastic oscillating plate. The Examiner failed to point out anything in Takeo that teaches that the second change-over means 25 is able to statically change the spring stiffness of the elastic oscillating plate.

Claim 5 further recites that the oscillating air chamber is applied with both a periodic change of the air pressure for actively oscillating the elastic oscillating plate and a static change of air pressure for inducing the static elastic deformation of the elastic oscillating plate. Takeo et

al. fail to teach the oscillating air chamber being applied with a substantially static change of an air pressure for inducing said substantially static elastic deformation of the elastic oscillating plate. The switch 16 of Takeo does not allow for both a periodic change of air pressure and a static change, as recited in claim 5.

Claim 6 further recites an active pressure regulating switch and a static pressure regulating switch. Takeo et al. fail to teach a combination of an active pressure regulating switch valve and a static pressure regulating switch valve operated as defined in claim 6.

Claim 7 further recites a restricting member, which is operated to increase the spring stiffness of the elastic oscillating plate. Takeo et al. fail to teach a restricting member which is used to continuously and statically regulate the spring stiffness of the elastic oscillating plate as defined in claim 7.

Claim 16 further recites a working air chamber. Takeo et al fail to teach the working air chamber operable as defined in claim 16. For at least these reasons, claims 2-7, 9-14, and 16-20, as amended, are not anticipated or made obvious by Takeo et al. (Japanese publication #10-061715) in view of Muramatsu (USP 5,170,998) and Muramatsu (EP 0936376A2).

The Examiner objected to claim 15 as being dependent upon a rejected base claim, and stated that claim 15 would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. The applicants' attorney appreciates the Examiner's comments. Claim 15 will be amended as needed at a later time.

Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at (650) 961-8300.

Respectfully submitted,

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